AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1 - 24.   (Canceled)

25.   (Previously Presented)   An apparatus comprising:

a transmitter that serially transmits data with a predetermined size to a receiver, the data having an identifier number and an error check data, the transmitter repeatedly transmitting the data without waiting for a response from the receiver;

an error detector, coupled to the transmitter, which detects a link error when the transmitted data is not received by the receiver;

a process unit that sets the transmitter to an error recovery state when the link error is detected; and

a buffer, coupled to the transmitter, which stores the transmitted data that is not received by the receiver, and wherein the transmitter transmits first predetermined bit pattern data to the receiver when the transmitter is in the error recovery state, transmits second predetermined bit pattern data to the receiver after receiving a response of the first predetermined bit pattern data from the receiver, and transmits the data stored in the buffer when a link error is recovered.

26 - 28.   (Canceled)

29.   (Currently Amended)   A data transfer apparatus comprising:

a first controller that transmits a predetermined number of blocks of data to a

second controller without waiting for ~~a response~~ an acknowledgment from the second

controller, the transmitted blocks of data having consecutive identifier numbers;

a response unit that transmits from the second controller to the first controller the

~~response~~ acknowledgement when the second controller correctly receives [[an]] a block

of data and a re-transmission request when the second controller does not correctly

receive [[an]] a block of data, the ~~response~~ acknowledgment having the identifier

number of the received block of data, the re-transmission request having no identifier

number;

a manager that detects an identifier number of the latest ~~response~~

acknowledgement,

wherein the first controller, when the ~~response~~ acknowledgment is received,

transmits to the second controller [[a]] another block of data having an identifier number

that follows the identifier number of the latest block of data transmitted from the first

transmitter, and

when the re-transmission request is received, transmits to the second controller a

block of data having an identifier number that follows the identifier number of the latest

~~response~~ acknowledgement.

30.   (Previously Presented)   The apparatus according to claim 29, wherein

a configuration of the first controller is the same as a configuration of the second

controller.

31.   (Previously Presented)   The apparatus according to claim 29, wherein the first controller and the second controller have respective configuration registers.

32.   (Currently Amended)   A data transfer apparatus in which data required to transmit a bus transaction is transmitted between first and second controllers respectively connected to first and second buses, the ~~computer system~~ data transfer apparatus comprising:

a transmitter that repeatedly transmits a predetermined number of blocks of data from the first controller to the second controller without waiting for a response from the second controller, the transmitted blocks of data having consecutive identifier numbers;

a response unit that transmits from the second controller to the first controller the response when the second controller correctly receives a block of data, the response having the identifier number of the received block of data;

a manager that detects the identifier number of the latest response; and

a transmission controller that makes the transmitter stop repeatedly transmitting the predetermined number of blocks of data and instead repeatedly ~~transmit~~ transmits another predetermined number of blocks of data from the first controller to the second controller without waiting for a response from the second controller, the another predetermined number of blocks of data including blocks of data having identifier numbers that follow the identifier number of the latest response.

33.   (Previously Presented)   The apparatus according to claim 32, wherein the first controller and the second controller have the same configuration.

34.   (Previously presented)   The apparatus according to claim 32, wherein the first controller and the second controller have respective configuration registers.

35.   (Currently Amended)   A data transfer apparatus in which data required to transmit a bus transaction is transmitted between first and second controllers respectively connected to first and second buses, the ~~computer system~~ <u>data transfer apparatus</u> comprising:

a first transmitter that transmits a predetermined number of blocks of data from the first controller to the second controller without waiting for a response from the second controller, the transmitted blocks of data having consecutive identifier numbers;

a response unit that transmits from the second controller to the first controller the response when the second controller correctly receives a block of data, the response having the identifier number of the received block of data;

an error detector that detects a link error between the first controller and the second controller when the first controller receives the responses having nonconsecutive identifier numbers;

an error recovery processing unit that repeatedly exchanges a predetermined bit pattern between the first controller and the second controller and transmits from the second controller to the first controller a re-transmission request requesting re-transmission of ~~the blocks~~ <u>a block</u> of data that [[are]] <u>is</u> not correctly received by the

second controller when a condition in which a serial data transfer between the first controller and the second controller is met; and

a second transmitter that re-transmits a block of data from the first controller to the second controller which is requested by the re-transmission request.

36.   (Previously Presented)   The apparatus according to claim 35, wherein the first controller and the second controller have the same configuration.

37.   (Previously Presented)   The apparatus according to claim 35, wherein the first controller and the second controller have respective configuration registers.